



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-P31-8TW-A-POE 4000K AMBIENT ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 18937.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 25-AUG-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2x4' MULTI COMPARTMENT LED TROFFER
 [MORE] FROSTED ACRYLIC DIFFUSER
 [LUMCAT] AMD4AERNG-P31-8TW-A-PoE 4000k AMBIENT ONLY
 [_SEARCH_SOURCETYPE]LED
 [_SEARCH_APPLICATION]INDOOR,DIRECT,MEDICAL
 [_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3123
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	27.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1335	1502	1647
55	1075	1294	1421
65	859	1106	1019
75	640	735	597
85	516	469	364

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0	1294.467	1294.467	1294.467	1294.467	1294.467	1294.467	1294.467	1294.467	1294.467
5	1288.041	1285.185	1285.185	1285.899	1290.183	1292.325	1294.467	1295.181	1296.609
10	1244.488	1246.630	1252.341	1260.909	1268.763	1275.903	1281.615	1283.043	1283.043
15	1180.228	1185.940	1199.506	1218.070	1230.922	1240.204	1245.202	1247.344	1247.344
20	1136.675	1143.815	1166.662	1190.224	1210.216	1222.354	1226.638	1223.068	1219.498
25	1031.718	1043.142	1069.560	1097.405	1121.681	1134.533	1134.533	1125.965	1119.539
30	942.469	956.749	993.162	1031.718	1059.564	1075.985	1074.558	1060.992	1048.854
35	855.362	875.354	916.051	958.891	983.167	1001.730	998.874	978.883	965.317
40	748.977	775.395	820.376	865.358	890.348	901.772	894.632	867.500	847.508
45	659.014	688.288	741.837	783.963	813.237	821.804	805.383	773.253	745.407
50	541.206	569.765	626.171	664.012	692.572	699.712	681.862	644.021	614.747
55	430.537	461.239	518.358	551.916	569.051	584.759	572.621	528.354	499.080
60	332.720	363.422	414.829	431.965	431.251	454.099	466.237	420.541	389.839
65	253.467	285.597	326.294	316.298	300.591	332.720	368.420	330.578	300.591
70	179.926	207.772	226.335	194.206	187.066	207.058	252.039	240.615	211.342
75	115.667	135.658	132.802	112.097	107.813	118.523	144.940	157.792	132.088
80	69.257	79.967	72.113	60.689	57.119	62.831	76.397	85.679	73.541
85	31.416	34.272	28.560	24.276	22.134	22.134	26.418	28.560	27.132
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	469.28	N.A.	15.00
0-30	979.75	N.A.	31.40
0-40	1572.99	N.A.	50.40
0-60	2632.75	N.A.	84.30
0-80	3089.09	N.A.	98.90
0-90	3123.02	N.A.	100.00
10-90	3000.66	N.A.	96.10
20-40	1103.71	N.A.	35.30
20-50	1688.35	N.A.	54.10
40-70	1372.93	N.A.	44.00
60-80	456.34	N.A.	14.60
70-80	143.17	N.A.	4.60
80-90	33.94	N.A.	1.10
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3123.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	122.36
10-20	346.92
20-30	510.47
30-40	593.24
40-50	584.64
50-60	475.12
60-70	313.18
70-80	143.17
80-90	33.94
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	134	134	134	134	131	131	131	131	125	125	125	120	120	120	115	115	115	113
1	124	119	114	110	121	116	112	108	111	108	105	107	104	102	103	101	99	97
2	113	105	97	91	110	102	96	90	98	93	88	95	90	86	91	88	84	82
3	104	93	84	77	101	91	83	76	87	81	75	84	79	74	82	77	72	70
4	95	83	73	66	93	81	72	66	78	71	65	76	69	64	73	68	63	61
5	88	74	64	57	86	73	64	57	70	63	56	68	61	56	66	60	55	53
6	81	67	57	50	79	66	57	50	64	56	50	62	55	49	60	54	49	47
7	76	61	51	45	74	60	51	45	58	50	44	57	49	44	55	49	44	41
8	70	56	46	40	69	55	46	40	54	45	40	52	45	40	51	44	39	37
9	66	51	42	36	64	51	42	36	49	41	36	48	41	36	47	40	36	34
10	62	47	39	33	60	47	38	33	46	38	33	45	38	33	44	37	32	31

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UGR TABLE - CORRECTED

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	11.2	12.8	11.6	13.1	13.4	12.7	14.3	13.1	14.6	14.9
	3H	12.6	14.0	13.0	14.4	14.7	13.8	15.2	14.2	15.5	15.9
	4H	13.1	14.4	13.5	14.8	15.1	14.0	15.4	14.4	15.7	16.1
	6H	13.4	14.6	13.8	15.0	15.4	14.2	15.4	14.6	15.8	16.2
	8H	13.5	14.7	13.9	15.1	15.5	14.2	15.4	14.7	15.8	16.2
	12H	13.6	14.7	14.0	15.1	15.5	14.2	15.4	14.7	15.7	16.2

UGR Viewed Endwise

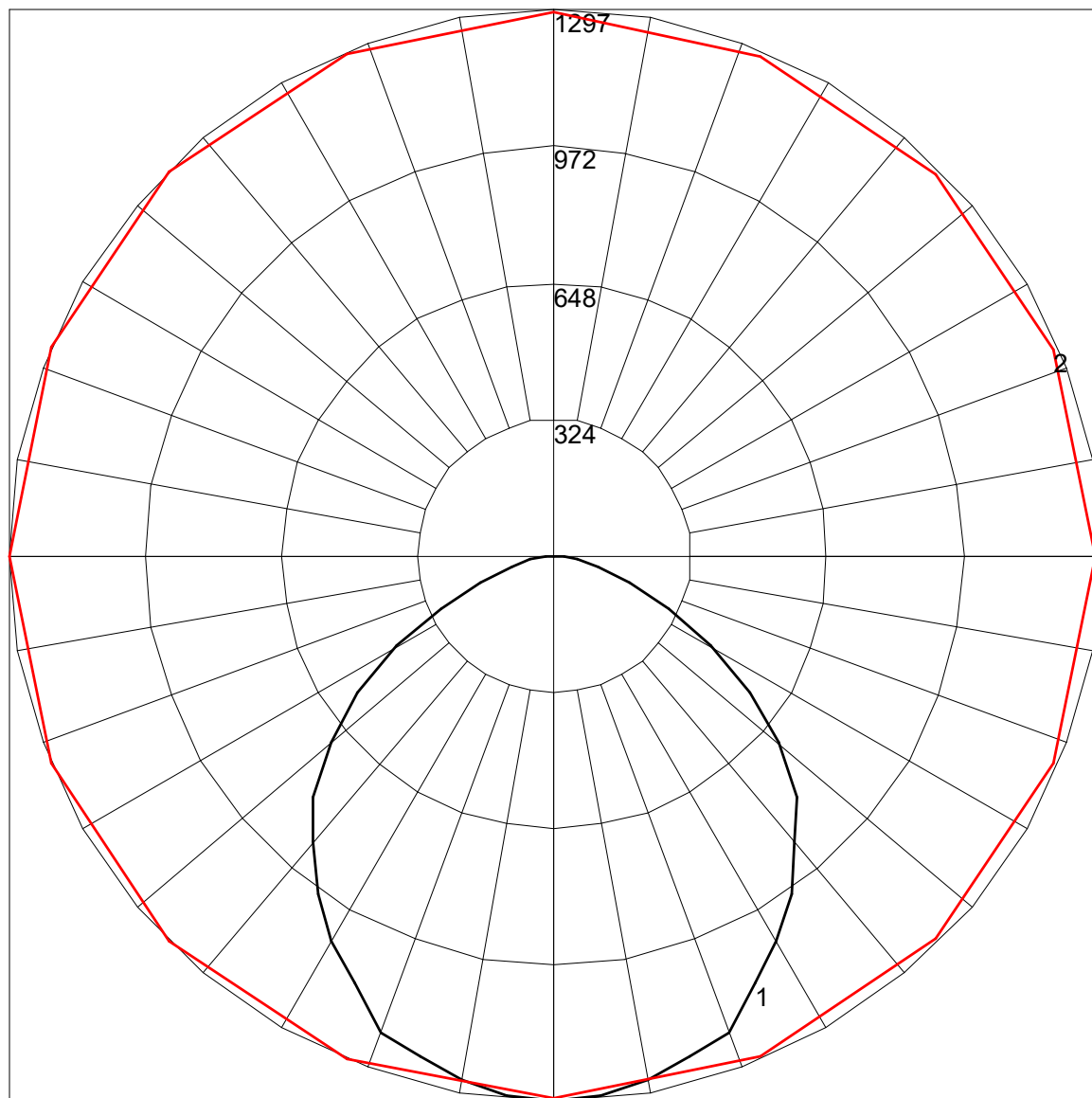
4H	2H	12.0	13.3	12.4	13.7	14.1	13.3	14.6	13.7	14.9	15.3
	3H	13.6	14.7	14.0	15.1	15.5	14.5	15.6	14.9	16.0	16.4
	4H	14.2	15.1	14.6	15.6	16.0	14.8	15.8	15.3	16.2	16.7
	6H	14.6	15.4	15.0	15.9	16.3	15.1	15.9	15.5	16.4	16.8
	8H	14.7	15.5	15.2	16.0	16.4	15.1	15.9	15.6	16.4	16.8
	12H	14.8	15.5	15.3	16.0	16.5	15.2	15.9	15.6	16.3	16.8
8H	4H	14.4	15.2	14.8	15.6	16.1	15.0	15.8	15.5	16.3	16.7
	6H	14.9	15.6	15.4	16.1	16.5	15.3	16.0	15.8	16.5	16.9
	8H	15.1	15.7	15.6	16.2	16.7	15.4	16.0	15.9	16.5	17.0
	12H	15.3	15.8	15.8	16.3	16.9	15.5	16.0	16.0	16.5	17.1
12H	4H	14.4	15.1	14.9	15.6	16.0	15.0	15.8	15.5	16.2	16.7
	6H	14.9	15.5	15.5	16.0	16.5	15.3	15.9	15.9	16.4	16.9
	8H	15.2	15.7	15.7	16.2	16.8	15.5	16.0	16.0	16.5	17.1

Maximum UGR = 17.1

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POLAR GRAPH



Maximum Candela = 1296.609 Located At Horizontal Angle = 180, Vertical Angle = 5

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)